APPENDIX J
FIRE

DILLON FIELD OFFICE POLYGON DESCRIPTIONS FOR FIRE MANAGEMENT ZONES

BACKGROUND

The Dillon Field Office is located in the southwestern corner of Montana. It includes approximately 910,000 acres of BLM lands. Grasslands and shrubs are the most common landcover categories. About 280,300 acres or 31 percent of the public lands are considered grasslands. About 440,500 acres or 48 percent of the public lands are considered shrublands. About 168,800 acres or 19 percent of the public lands are considered forestlands. About 4,400 acres or less than 1 percent of the public lands are considered riparian areas. The remainder of the area is made up of barren areas such as exposed rock or badlands.

The Dillon Field Office contains 17 fire management zones. It also contains ten WSAs (Ruby Mountains, Blacktail Mountains, East Fork Blacktail Deer Creek, Hidden Pasture Creek, Bell/Limekiln Canyons, Henneberry Ridge, Farlin Creek, Axolotl Lakes, Centennial Mountains, and Tobacco Root Tack on (Section 202)), and one Wilderness Area (Bear Trap Canyon) (see **Map 5**).

BEAVERHEAD/JEFFERSON (A2) AND MADISON VALLEY (A10)

Area description: The Beaverhead/Jefferson area is a corridor of private agricultural land along the Beaverhead and Jefferson rivers. The area includes approximately 937,524 acres (4 percent BLM, 11 percent state, and 85 percent private).

Wildland fire occurrence: Between 1980 and 1999, federal agencies responded to 25 fires in the Beaverhead/Jefferson area which burned an estimated 4,568 acres. Average fire size was 182.7 acres. Federal agencies have responded to 33 fires in the Madison Valley which burned an estimated 5,960 acres. Average fire size was 180 acres.

Interface: The majority of the population base of Beaverhead and Madison Counties lives within these areas. A large percentage of Beaverhead River drainage is irrigated for agricultural crops. As a result, wildfire risk is normally low during the growing season. Some portions of the Madison River drainage are also irrigated for crops, but it contains more dry land areas susceptible to wildfire. It also has a rapidly growing urban interface. However, no priority interface areas with hazardous fuels buildup on public lands have been identified in this area.

Area concerns and constraints: Fire is generally not desired due to large amounts of private land and rural subdivisions.

Fire objective: Wildland fire is not desired due to large amount of private land and agricultural production along the Beaverhead and Jefferson rivers.

BEAVERHEAD MOUNTAINS (B1)

Area description: This area runs along the Continental Divide and contains primarily high elevation heavy conifer fuel types. The area includes approximately 743,328 acres (4 percent BLM, 2 percent state, 10 percent private, and 84 percent FS). BLM lands constitute a minor amount of Federal ownership along the west side of the Big Hole Valley.

Wildland fire occurrence: Between 1980 and 1999, federal agencies responded to 90 fires which burned an estimated 320 acres. Average fire size was 3.5 acres.

Interface: The towns of Wisdom and Jackson are the main concentrations of housing and are in defendable areas from wildfire. The remainder of the area is sparsely populated with isolated ranch operations and associated out buildings. Typical urban interface situations are uncommon. No priority interface areas with hazardous fuels buildup on public lands have been identified in this area.

Area concerns and constraints: Unplanned fire is likely to cause negative effects. High recreation use due to Continental Divide Trail, contains a Scenic Byway, and it is a wildlife migration corridor which provides important security and hiding cover. This entire area provides potential/occupied lynx habitat. The Lynx Conservation Strategy may modify or constrain salvage harvest and/or prescribed fire to protect lynx denning habitat.

Resource objectives: Restore and maintain healthy forest ecosystems with stocking density control.

Fire objectives: The use of fire as a management tool would primarily be designed to reach vegetation management ob-

jectives described above. Unplanned fire is likely to cause negative effects. Prescribed fire and other fuels management may be used to avoid or mitigate adverse impacts of wildland fire.

BIG SHEEP/MEDICINE LODGE BACK COUNTRY BYWAY (B4)

Area description: This area is primarily a sagebrush/grass fuel type. The area includes approximately 96,125 acres (48 percent BLM, 6 percent state, 4 percent private, and 5 percent FS).

Wildland fire occurrence: Between 1980 and 1999, federal agencies responded to 14 fires which burned an estimated 3,720 acres. Average fire size was 266 acres.

Interface: Interface areas are mostly scattered ranches and associated structures. The Medicine Lodge interface area is really two separate low priority interface areas with hazardous fuels buildup on public lands. They have low population density, low escaped fire potential, low to medium potential for loss of life or property from wildland fire, and relatively low community support for treating hazardous fuels.

Area concerns and constraints: Unplanned fire is likely to cause negative effects. This area contains high levels of public use for recreation and a large amount of private land.

Resource objectives: Maintain healthy grass/sagebrush plant community.

Fire objectives: Limit the use of fire as a management tool due to limited BLM ownership and heavy recreation use. Unplanned wildland fire is likely to cause negative effects. Prescribed fire and other fuels management may be used to avoid or mitigate adverse impacts of wildland fire.

CENTENNIAL (C7)

Area description: This area consists of open sagebrush/grass with numerous wetlands. The south end contains dense stands of conifers to the Continental Divide. North end is sagebrush dominated foothills. Frequent past fires have reduced sagebrush canopy cover in key winter range areas. The area includes approximately 505,750 acres (27 percent BLM, 17 percent state, 38 percent private, 7 percent National Wildlife Refuge, and 9 percent FS). It also contains the Centennial Mountains WSA (27,691 acres) which accounts for about one fifth of the BLM acreage in this fire management area.

Wildland fire occurrence: Federal agencies responded to 41 fires which burned more than 7,800 acres. Average fire size was 190 acres. Between 1980 and 1998 BLM responded to 10 fires that averaged about 410 acres.

Interface: Communities include Dell, Lima, Monida and Lakeview. There are also ranches and outbuildings scattered throughout the area. Two priority interface areas with hazardous fuels buildup on public lands are Lakeview and Alaska Basin. Lakeview is considered to have medium population density, low to medium escaped fire potential, low potential for loss of life or property, and medium community support for treating hazardous fuels. Alaska Basin has low population density, medium escaped fire potential, low potential for loss of life or property, and community support for reducing hazardous fuels is unknown.

Area concerns and constraints: Loss of livestock forage on adjoining private land, cultural concerns, implementation of the Gravelly Landscape Plan, and coordination with Red Rock Refuge. This unit supports significant wildlife use on seasonal habitat and migrational corridors. The Centennial Mountains provide potential/occupied lynx habitat. The lynx Conservation Strategy may modify or constrain salvage harvest and/or prescribed fire to protect lynx denning habitat. Significant interstate movement of sage grouse, elk, wolverine, grizzly bear and wolf through this area emphasizes the need to maintain seasonal habitat and travel corridors. Sagebrush habitat has been substantially fragmented by private land vegetation treatments.

Resource objectives: Resource objects are to maintain healthy grass/sagebrush communities in the non-forested areas. In the forested portion of the Centennial Mountains, restore forest health conditions as outlined in the Gravelly Landscape Analysis (GLA). Specifically, the GLA stated that 700 acres of aspen should be restored, and the drier Douglas-fir habitat types should be restored to a savannah structure. In areas of extensive lodgepole pine, fire should be the primary means of establishing age class mix. In areas of subalpine fir, treatment should emphasize areas where there is enough lodgepole pine intermixed to restore earlier seral conditions or where there is sufficient whitebark pine seed source to re-establish this important species.

Fire objectives: Fire, subject to the constraints listed above, is desired to help manage the ecosystem. Fire/other methods may be used to open dense timber stands in the southern portion to move succession back to an early seral stage with increased aspen growth and to reduce conifers in riparian areas. Limit fire in the north portion of the valley to protect crucial sagebrush winter range.

BLACKTAIL MOUNTAINS (C5)

Area description: Approximately half the area consists of dense conifer stands at the upper elevations. The other half is a sagebrush/grass fuel type. The area includes approximately 34,564 acres (62 percent BLM, 13 percent state, and 25 percent private). The Blacktail Mountains WSA (17,497 acres) makes up about 80 percent of the BLM acreage in this Fire Management Area.

Wildland fire occurrence: Between 1980 and 1999, federal agencies responded to eight fires which burned an estimated 350 acres. Average fire size was 43.7 acres.

Interface: There is one ranch and several "cow camps" and outbuildings in the area. No interface areas with hazardous fuels buildup on public lands were identified as a priority.

Resource objectives: Mechanical forest management treatments are incompatible with WSA policy guidance. Low intensity fire (either unplanned or planned ignition) may be used to reduce current stocking levels of overcrowded conifer stands and re-establish earlier seral conditions. The Blacktail Mountains are part of a larger area identified in the GLA. Resource and fire objectives for grass/sagebrush are addressed in the Blacktail/Horse Prairie section.

Fire objectives: Fire, subject to the constraints listed above, is desired to help manage the ecosystem. Fire/other methods may be used to open the canopy of dense stands of conifers and to reestablish an earlier seral stage. Fire may be used at the conifer/sagebrush interface to reduce encroachment of young conifers into sagebrush on approximately 1,500 acres/year. Fire may be used on up to 300 acres to restore decadent aspen stands to earlier successional stages and reintroduce Douglas-fir savannah structures.

TENDOY MOUNTAINS (C15)

Area description: Approximately 70 percent of the area is sagebrush/grass fuel type. The other 30 percent of the area has dense conifers. The area includes approximately 135,800 acres (41 percent BLM, 3 percent state, 8 percent private, 48 percent FS). Hidden Pasture Creek WSA (15,509 acres) and Bell/Limekiln Canyon WSA (9,650 acres) account for about 45 percent of the BLM acreage.

Wildland fire occurrence: From 1978 to 1999, federal agencies have responded to 13 fires which burned an estimated 56 acres. Average fire size was 4.3 acres.

Interface: There are several ranches and outbuildings scattered throughout the area. No interface areas with hazardous fuels buildup on public lands were identified as a priority.

Area concerns and constraints: Protect remnant stands of Mountain Mahogany, protect scenic byway on west and south ends. Portions of the Tendoy Mountains provide potential/occupied lynx habitat. The lynx Conservation Strategy may modify or constrain salvage harvest and or prescribed fire to protect lynx denning habitat. The presence of major elk winter and calving ranges, and sage grouse breeding complexes and winter habitat emphasize the need to protect sagebrush habitat and security cover.

Resource objectives: Maintain healthy grass/sagebrush communities and restore forest health conditions in the Tendoy Mountains.

Fire objectives: Fire, subject to the constraints listed above, may be desired to help manage the ecosystem. Fire/other methods may be used on up to 500 acres to maintain the current interspersion of habitat types. Fire is desirable to restore Aspen and Bitterbrush communities.

BLACKTAIL/HORSE PRAIRIE (C6)

Area description: This area is primarily an open sagebrush/grass fuel type. It contains small isolated timber stands in low to mid elevation foothills. The area includes approximately 663,700 acres (41 percent BLM, 19 percent state, 39 percent private, 1 percent FS). The Henneberry Ridge WSA (9,806 acres) accounts for less than five percent of the BLM acreage.

Wildland fire occurrence: From 1978 to 1999, federal agencies have responded to 26 fires which burned an estimated 14,300 acres. Average fire size was 548 acres. An estimated 5 percent of the area has burned since the early 1980s.

Interface: The town of Grant contains the main concentrations of housing and is in a defendable area from wildfire. The town has low population density, escaped fire potential is considered low, and the potential for loss of life or property is considered low. Community support for hazardous fuels reduction actions is considered low. The remainder of the area is sparsely populated with isolated ranch operations and associated outbuildings. Interface situations are uncommon. Donovan Ranch was identified as an interface area with low population density, low potential for escaped fire, and low potential for loss of life or property. Community support for actions to reduce hazardous fuels is unknown.

Area concerns and constraints: Adjoining private lands limit fire management opportunities and require close coordination and consultation with landowners. The Horse Prairie area supports several major sage grouse breeding complexes, antelope and elk winter habitat. Sagebrush habitats also support several sensitive sagebrush-dependant species. Signifi-

cant areas of sagebrush habitat have been fragmented, modified or converted by vegetation treatments. Areas adjoining Beaverhead-Deerlodge National Forest provide potential/occupied lynx habitat. The lynx Conservation Strategy may modify or constrain salvage harvest and/or prescribed fire to protect lynx denning habitat.

Resource objectives: Maintain existing grass/sagebrush cover on public lands. Arrest the loss of this habitat to Douglas-fir encroachment where it interfaces with Douglas-fir habitat types on sagebrush lands east of Interstate 15.

Fire objectives: Fire, subject to the constraints listed above, may be used to help manage the ecosystem. Protect sagebrush communities due to high diversity of sagebrush-dependant wildlife species.

SWEETWATER/RUBY (C14)

Area description: Approximately 70 percent of this area is sagebrush/grass fuel type. The remaining 30 percent consists of mixed conifer fuel type. The area includes approximately 326,900 acres (27 percent BLM, 18 percent state, 54 percent private, 1 percent FS). The East Fork Blacktail Deer Creek WSA (6,230 acres) accounts for about seven percent of the BLM acreage.

Wildland fire occurrence: From 1978 to 1999, federal agencies have responded to 26 fires which burned an estimated 8,400 acres. Average fire size was 321.5 acres. An estimated 25 percent of the sagebrush areas have burned since the early 1980s.

Interface: The area is sparsely populated with isolated ranch operations and associated outbuildings. Interface situations are uncommon. No interface areas with hazardous fuels buildup on public lands were identified as a priority.

Area concerns and constraints: Limit fire in sagebrush areas not being affected by Douglas-fir encroachment. Limit wildfire on the Blacktail Game Range in the southeast portion of the area. Sagebrush habitats supporting sage grouse breeding complexes, and sage grouse and antelope seasonal use have been fragmented and modified by vegetation treatments in Sweetwater Basin.

Resource objectives: Limit additional wildland and prescribed fire in the grass/sagebrush vegetation type on public lands for the next five years. Use of fire in the conifer vegetation types as opportunities permit would be beneficial by creating earlier seral conditions in these stands. NOTE: Gravelly Landscape Analysis objectives across all public lands in the Ruby Mountains recommended treating 400 acres of aspen, 6,600 acres of sagebrush/year, and 1,000 acres of grass, all over 10 years.

Fire objectives: Fire, subject to the constraints listed above, may be desired to help manage the ecosystem. Protect sagebrush communities due to high diversity of sagebrush-dependant wildlife species. Limit the amount of fire on public grasslands (primarily composed of sagebrush) due to past fires and sagebrush control on private and public lands.

TOBACCO ROOT MOUNTAINS (C16)

Area description: Public lands in this unit are primarily on the outside fringe of the Tobacco Root Mountain Range. Approximately 50 percent of this area is sagebrush/grass fuel type. The remaining 50 percent consists of mixed conifer fuel type. The area includes approximately 296,200 acres (11 percent BLM, 2 percent state, 30 percent private, 57 percent FS). The tobacco root tack-on (Section 202) WSA contains 860 acres which accounts for less than 3 percent of the BLM acreage.

Wildland fire occurrence: From 1978 to 1999, federal agencies have responded to 42 fires which burned an estimated 1,800 acres. Average fire size was 42.5 acres.

Interface: The town of Pony and growing subdivisions are relatively common along the east and southern flanks of the Tobacco Root Mountains. These are commonly intermixed with public lands. Interface is also increasing on private lands along the the Tobacco Root Mountains. South Meadow Creek and Strawberry Ridge are interface areas near the Tobacco Root Mountains. South Meadow Creek is considered to have low population density, medium escaped fire potential, low potential for loss of life or property, and medium level of community support for hazardous fuel reduction actions. Strawberry Ridge is considered to have low population density, low to medium escaped fire potential, low potential for loss of life or property, and medium level of community support for hazardous fuel reduction actions.

Area concerns and constraints: Limit fire along the south and east borders due to development of subdivisions. Major elk and mule deer winter habitat surrounds much of this unit on public and private lands. Maintaining seasonal habitats and security cover is a concern. Portions of the Tobacco Root Mountains provide potential/occupied lynx habitat. The lynx Conservation Strategy may modify or constrain salvage harvest and or prescribed fire to protect lynx denning habitat.

Resource objectives: Reintroduction of fire is desired along the west flank of the Tobacco Root Mountains where Rocky Mountain Juniper and Douglas-fir are encroaching and beginning to dominate both riparian areas and former grass/sagebrush areas. Forest health issues such as overstocked stands and associated loss of vigor would also be rectified

by use of mechanical thinning and recycling of nutrients by fire.

Fire objectives: Fire, subject to the constraints listed above, may be desired to help manage the ecosystem. Fire/other methods may be used to restore dense timber stands to earlier seral stages and to open dense juniper stands, particularly in riparian areas.

GRAVELLY MOUNTAINS (C9)

Area description: Public lands in this unit are primarily on the Northern fringe of the Gravelly Mountain Range. Approximately 30 percent of this area is sagebrush/grass fuel type. The remaining 70 percent consists of mixed conifer fuel type. The area includes approximately 626,600 acres (6 percent BLM, 3 percent state, 14 percent private, 77 percent FS). The Axolotl Lakes WSA (7,804 acres) accounts for about one-fifth of the BLM acreage.

Wildland fire occurrence: From 1978 to 1999, federal agencies have responded to 52 fires which burned an estimated 1,500 acres. Average fire size was 28.3 acres.

Interface: The Alder Gulch Historic Mining District lies in the area's northern portion and there is increasing subdivision activity along the eastern portion of the area. Summit-Alder Gulch is considered to have medium to high population density, low to high escaped fire potential, low to medium potential for loss of life or property, and medium level of community support for hazardous fuel reduction actions.

Area concerns and constraints: These areas could be difficult to defend in a major wildfire event due to the prevailing wind direction. Significant elk and mule deer seasonal habitat and winter ranges occur in this unit, along with increasing use by grizzly bear and wolf. Locations of game ranges and winter sagebrush habitat. Areas adjoining Beaverhead-Deerlodge National Forest provide potential/occupied lynx habitat. The lynx Conservation Strategy may modify or constrain salvage harvest and or prescribed fire to protect lynx denning habitat. As a result of these concerns specific fire suppression decisions or prescribed fire opportunities will be made on a case-by-case basis with management staff input via a Resource Advisor.

Resource objectives: These are a direct outcome of the Gravelly Landscape Analysis completed in September 1999. These vegetation objectives are recommendations for all the public ownership and are the direct outcome of Desired Future Condition of vegetation tempered by public input over a 3 year process. Both fire and mechanical treatments could be used to achieve the following objectives across all public ownerships over a ten year period: 1) Restore 4,400 acres of Aspen/year, 2)Restore Douglas-fir savannah, multiple age lodgepole pine classes and promote whitebark pine in the subalpine fire habitat type group, and 3) Maintain a mix of sagebrush age classes through time by treating 2,800 acres/year.

Fire objectives: Fire, subject to the constraints listed above, is desired to help manage the ecosystem. Fire/other methods may be used to restore dense timber stands to earlier seral stages and to open dense stands of conifers.

EAST MADISON (C8)

Area description: The area is primarily the foothills on the west slope of the Madison Mountain Range. It consists of a scattered grass/timber fuel type and is characterized by steep terrain and topography. The area includes approximately 391,100 acres (3 percent BLM, 2 percent state, 33 percent private, 62 percent FS). The majority of the BLM ownership is in the northwest portion of this area in the Beartrap Wilderness Area. The remaining BLM land is in the southwestern portion of the area and are scattered tracts intermingled with larger private land and Forest Service lands. The Bear Trap Canyon WA (6,000 acres) makes up 54 percent of the BLM acreage in this area.

Wildland fire occurrence: From 1978 to 1999, federal agencies have responded to 70 fires which burned an estimated 8,000 acres. Average fire size was 114 acres.

Interface: Interface with private lands is high in the east portion of the Madison Valley. However, no interface areas with hazardous fuels buildup on public lands were identified as a priority.

Area concerns and constraints: The Lee Metcalf and the Bear Trap WSAs restricts the use of mechanical earthmoving equipment. Due to the configuration of BLM lands with other ownerships and the generally "flashy" fuels, use of prescribed "natural" fire is extremely difficult.

Fire objectives: Fire, subject to the constraints listed above, may be desired to help manage the ecosystem. Fire/other methods may be used to restore dense timber stands to earlier seral stages and to open dense stands of conifers.

SE FOOTHILLS/PIONEERS (C13)

Area description: The area is south of the Pioneer Mountain Range. About 70 percent consists of a scattered grass/timber fuel type and the remaining 30 percent is conifer type consisting mainly of Douglas-fir, juniper, and limber pine. The area includes approximately 220,500 acres (46 percent BLM, 6 percent state, 32 percent private, 16 percent FS). The Farlin Creek WSA (1,139 acres) is adjacent to the 93,859 acre Forest Service East Pioneer proposed wilderness. The

Farlin Creek WSA accounts for only one percent of the BLM acreage in the area.

Wildland fire occurrence: From 1978 to 1999, federal agencies have responded to 30 fires which burned an estimated 803 acres. Average fire size was 26.7 acres.

Interface: The townsites of Argenta and Polaris as well as growing subdivisions are found within the area. Argenta is considered to have medium population density, low escaped fire potential, low potential for loss of life or property, and medium level of community support for hazardous fuel reduction actions. Birch Creek is also an nearby intermix area that is considered to have low population density, medium escaped fire potential, low potential for loss of life or property, and an unknown level of community support for hazardous fuel reduction actions.

Area concerns and constraints: A FS wilderness proposal in the northern part of the area may influence suppression efforts. Major elk and mule deer winter habitat surrounds much of this unit on public and private lands. Maintaining seasonal habitats and security cover is a concern. Portions of the Pioneer Mountains provide potential/occupied lynx habitat. The lynx Conservation Strategy may modify or constrain salvage harvest and or prescribed fire to protect lynx denning habitat. Sagebrush habitat on the south end of the unit supports sage grouse breeding and winter. Past sagebrush treatments and habitat fragmentation have reduced habitat availability and suitability. As a result of these concerns specific fire suppression decisions or prescribed fire opportunities will be made on a case by case basis with management staff input via a Resource Advisor.

Planning guidance: Specific vegetation goals and objectives were developed in the PLA (Pioneer Landscape Analysis).

Resource objectives: On Federal lands, the restoration of 25 percent (or 9,000 acres) of Douglas-fir savannah, reduction of 1/3 or 2,000 acres of Douglas-fir encroachment into sagebrush, restoration of aspen, Mountain Mahogany and riparian communities were all objectives outlined in the PLA.

Fire objectives: Fire, subject to the constraints listed above, may be desired to help manage the ecosystem. Use fire/other methods to limit the encroachment of Douglas-fir into existing sagebrush stands, to restore and improve stands of aspens (especially in drainages), and to change dense Douglas-fir stands back to savannah type communities.

MCCARTNEY/ROCHESTER (C11) (ALSO IN THE BUTTE FIELD OFFICE)

Area description: The area is east of the Pioneer Mountain Range. About 70 percent consists of a scattered grass/timber fuel type and the remaining 30 percent is conifer type consisting of Douglas-fir, juniper, and limber pine. The area includes approximately 274,000 acres (43 percent BLM, 5 percent state, 36 percent private, and 16 percent FS). The area is also characterized by numerous roads from past mining activities.

Wildland fire occurrence: Between 1978 and 1999, federal agencies responded to 64 fires which burned an estimated 2,280 acres. Average fire size was 35.5 acres. Prescribed fires have been used on 2,000 acres in the McCarthy Mountain area since the 1980s.

Interface: This area contains isolated ranches, the community of Glen, and several fishing-related commercial operations.

Area concerns and constraints: The Humbug Spires WSA restricts the use of mechanical equipment. Fire management should be coordinated with the Forest Service. Protection of cultural resources (mining related) and private property requires careful consideration and consultation. The protection of mining-related cultural resources and private property are also concerns.

Resource objectives: Maintain/enhance lodgepole pine communities for a variety of size and age classes and stand structure. Protect the wilderness character of Humburg Spires WSA. Objectives would be similar to the Southeast Foothills where aspen, Douglas-fir encroachment and Mountain Mahogany opportunities permit.

Fire objectives: Fire, subject to the constraints listed above, may be desired to help manage the ecosystem. Prescribed fire/other methods may be used to limit conifer encroachment into the McCarthy Mountain area.

BIG HOLE RIVER CORRIDOR (C3) (ALSO IN THE BUTTE FIELD OFFICE)

Area description: About 50 percent consists of open sagebrush/grass parks. Another 45 percent is Douglas-fir. Mountain mahogany is scattered throughout the area occurring on steep-rocky south and west facing slopes. Much of this is overtopped by Douglas-fir. The remaining 5 percent of the area contains drainages dominated by lodgepole pine. The area is characterized by steep topography and close proximity to the highway. The area includes approximately 50,400 acres (14 percent BLM, 3 percent state, 16 percent

private, 67 percent FS). The area is also characterized by numerous roads from past mining activities.

Wildland fire occurrence: From 1978 to 1999, federal agencies have responded to 34 fires which burned an estimated 463 acres. Average fire size was 13.6 acres.

Interface: Both individual home site development and subdivision activity are increasing. No interface areas with hazardous fuels buildup on public lands were identified as a priority.

Area concerns and constraints: Steep topography and proximity to the highway and private land limits suppression options.

Resource objectives: Objectives would be similar to the Southeast Foothills where aspen, Douglas-fir encroachment and Mountain Mahogany opportunities permit.

Fire objectives: Fire, subject to the constraints listed above, may be desired to help manage the ecosystem. Fire/other methods may be used to limit the encroachment of Douglas-fir into open sagebrush parks and areas of mountain mahogany.

NORTH RUBYS (D12)

Area description: Consists of dense stands of Douglas-fir. Terrain is very steep. The area consists of approximately 26,800 acres in the Ruby Mountains WSA (100 percent BLM).

Wildland fire occurrence: No fires have been reported in this area. However, forest mosaic stands indicate a history of multiple stand replacement fires.

Interface: There is little interface within the Ruby Mountains WSA. Private agricultural and forestlands surround the WSA along the southeast border. Agricultural land, much of which is irrigated during the growing season, surrounds the rest of the BLM lands.

Area concerns and constraints: Fire control would be difficult due to poor access and steep terrain. Watershed damage and erosion could be concerns with large fires.

Resource objectives: The GLA recommended restoring 200 acres of aspen over 10 years, restoring 2,000 acres of sagebrush being lost to Douglas-fir encroachment and restoring Douglas-fir savannah stands by killing the competing understory of conifers.

Fire objectives: Generally fire/other methods are desired to open dense conifer stands and to reduce heavy fuels.

EMERGENCY STABILIZATION AND REHABILITATION

INTRODUCTION

The purpose and need of a normal fire rehabilitation plan is to streamline the emergency fire rehabilitation process to enable on-the-ground treatments to be completed within time frames consistent with the urgent nature of fire rehabilitation. The normal fire rehabilitation plan facilitates the orderly and timely rehabilitation of burned lands by delineating the procedures to be followed and treatments to be used after wildland fires that occur on the DFO.

Appropriate use of emergency fire rehabilitation funds includes implementing the following practices to:

- Protect life, property, and soil, water and/or vegetative resources.
- Prevent unacceptable onsite or offsite damage.
- Facilitate meeting land use plan objectives and other Federal laws.
- Reduce the invasion and establishment of undesirable or invasive species of vegetation.

Emergency fire rehabilitation funds are not used for rehabilitation of wildland fire suppression efforts; this includes rehabilitating firelines, helispots, fire camp, etc. Costs for rehabilitating wildland fire suppression efforts will be funded by the wildland fire project code.

The terms *rehabilitation* and *restoration* are often used synonymously, especially in relationship to the use of native species to revegetate burned areas. Rehabilitation is the "repair" of a wildland fire area utilizing native and/or nonnative plant species to obtain a stable plant community that will protect the burned area from erosion and invasion of weeds. Restoration is the use of a diverse mixture of only native species to obtain a plant community that is similar in appearance and function to the historic vegetation.

Total restoration of a burned area is not within the scope of the emergency fire rehabilitation program, although the use of native plants to rehabilitate burned areas is strongly encouraged. Native plants are to be used on those soils and ecological sites where they are, (1) adapted, (2) able to establish and survive with weed competition and periodic drought; (3) compatible with other land uses, and (4) reasonably priced relative to the land use and emergency fire rehabilitation plan objectives. The application of emergency fire rehabilitation practices should be consistent with the S&G's in as much as the constraints of emergency fire rehabilitation policy will allow.

This plan guides emergency wildland fire rehabilitation efforts in areas of the DFO that meet one or more of the following criteria:

- Areas that are highly susceptible to accelerated soil erosion, either because of soil characteristics, steep topography, or recurrent high winds.
- Areas where native grasses and forbs cannot reasonably be expected to provide soil and watershed protection within two years following fire.
- Areas where unacceptable vegetation, such as noxious weeds or invasive annuals, may readily invade and become established following fire.
- Areas where shrubs are a crucial wildlife habitat component for greater sage-grouse, mule deer, elk, and pronghorn.

The process for implementing emergency fire rehabilitation activities through a site-specific plan development process is described as follows:

1) Following a wildland fire, the area manager, consulting with resource specialists, will decide if fire rehabilitation is needed. If fire rehabilitation is needed, an interdisciplinary team reviews the burn and selects the proper rehabilitation prescription from this plan. (If the proper prescription does not fall under the scope of this plan, refer to the "Emergency Fire Rehabilitation Handbook" [H-1742-1] for guidance. Generally, rehabilitation efforts not covered in this plan would require an environmental assessment.)

2) The prescription identifies the appropriate seed mixture, application rates, planting methods, and costs. The prescription also describes any additional treatments that may be necessary including shrub planting, erosion control structures, protection fencing, and grazing adjustments beyond the normally prescribed minimum two growing seasons rest period.

3) A budget is created that summarizes the rehabilitation costs by fiscal year. This budget is sent to the State Director for funding approval.

4) For all rehabilitation projects covered by this plan, a site-specific rehabilitation plan will be prepared that is tiered to this plan. Additionally, each rehabilitation project requires a normal fire rehabilitation plan treatment form.

5) Cultural and T&E species clearances will be completed prior to project implementation. Known populations of T&E plants will be marked and that area restricted from heavy equipment use. Cultural sites discovered during clearances or previously known sites will be marked and avoided by ground disturbing equipment.

Due to the broad spectrum of situations encountered in emergency fire rehabilitation, several options of possible treatments, either separately or in combination, must be considered. The list of activities that may be considered are outlined below.

NATURAL REVEGETATION

In many cases, successful reestablishment of native species occurs if the perennial plant species are not killed as a result of the fire, or if viable and desirable seed or root mass is present. Generally, in these areas it would be necessary to rest the burned area from livestock grazing for at least two growing seasons. In some situations, the area may be closed to vehicles by issuing a temporary emergency closure. The only rehabilitation that may be necessary is repairing damaged fencing and/or construction of temporary fencing around the burned area until the native vegetation is successfully reestablished.

SEEDING WITH RANGELAND DRILLS OR AERIAL SEEDING

Seeding of burned areas would only be considered if the emergency fire rehabilitation team determines that the burned area would not successfully reestablish to a native perennial plant community in a reasonable amount of time (generally two growing seasons under normal precipitation). Seed mixtures should be designed for specific soil types. Parameters such as soil properties, erosion potential, aspect, elevation, intended use, potential plant community, threat to existing watershed, and seed cost and availability would be evaluated in selecting seed mixtures.

The use of native plants for rehabilitation is strongly encouraged and is both BLM emergency fire rehabilitation policy and a standard for meeting rangeland health objectives. That policy is tempered, however, by the availability of native seed at a reasonable cost, its adaptation to the area proposed for treatment, impacts of competition on seeding establishment, and land use plan requirements. There are many areas where one or more of these criteria cannot be met, and the only choice is between seeding nonnative, such as crested wheatgrass and noxious weeds becoming established in the disturbed areas. Given these situations, the use of nonnatives is allowed to biologically and physically stabilizes the burned area until the earliest possible time when the introduced grass seedlings can be restored (converted) to a more diverse native plant community. Where available, native seed should be used in combination with nonnatives to complete a diverse mix of species to meet particular land use objectives for the site.

Seeding guidelines:

- Native species will be utilized over nonnative species as appropriate and based on seed availability.
- A project inspector will monitor all phases of implementation.
- The area to be seeded will be rested from grazing for at least two growing seasons or until vegetation is successfully established. Livestock will be excluded by using fencing, closing specific pastures, or closing entire allotments.
- Only native species will be seeded in WSAs.
- Monitoring will determine the effectiveness of seeding and to indicate when grazing will resume.
- Use only certified weed-free sources and collect seed samples for an All States Noxious Weed Test. Seed nonnatives only in areas of the burn where high erosion or unacceptable vegetation is expected to occur. This may include, but not be limited to, roads, gullies, noxious weed areas, or cheatgrass sites. This will allow refugia for native species where they can reestablish without competition from nonnative species.
- If nonnative species are used, a preference should be given to species that are not invasive and can be replaced naturally by native shrubs and grasses. If this is inappropriate or is ineffective, a commitment should be made for long-term secondary restoration of a site following planting of nonnatives.

CONSTRUCTION OF EROSION AND SEDIMENT CONTROL STRUCTURES

Where the possibility of damage is great, structures, such as retention dams, or land treatments, such as contour furrowing, may be needed to control erosion, sediment yield, and flood waters. In most cases, these treatments would be used in combination with seeding. Gully check dams or plugs may be required where headcutting erosion is occurring. Gully treatment may also include broadcast seeding and chaining to establish perennial vegetation on the channel sides and bottom. Planning, design, and construction of erosion and sediment control structures and flood water retarding structures will be implemented in accordance with BLM Manual 1972, Water Control Structures. Any erosion and sediment control structures proposed within a WSA must comply with wilderness IMP.

CONSTRUCTION OF SUPPORT FACILITIES

Fences, gates, cattle guards, and other control features will be constructed or repaired as needed to further natural revegetation, and to protect seedings or other improvements created for rehabilitation. Follow BLM Manual Handbook H-1741-1 for fencing specifications. Any construction of support facilities proposed within a WSA must comply with wilderness guidelines.

FIRE REHABILITATION GUIDELINES FOR WILDERNESS STUDY AREAS

Rehabilitation following wildland fire in a WSA will comply with wilderness IMP (H-8550-1). When a proposed rehabilitation project addresses an area covering land both within and outside a WSA, it will be treated as two separate projects. The area outside the WSA will be treated in accordance with this guide. The area inside the WSA will be treated in accordance with the wilderness IMP referenced above.

Interested parties will be allowed a 30-day comment period on the proposed treatment in WSAs, unless it is not possible to do so because of emergency conditions (i.e., the 30-day comment period would result in missing the optimum period for treatment). If a full 30-day period would result in missing the optimum period for rehabilitation, key contacts would be notified for immediate comment, and a follow up copy of the treatment prescription would be forwarded.

Disturbance caused by fire suppression actions will be evaluated in WSAs. If it is determined that wilderness suitability is affected by the fire suppression disturbance, mitigation of the disturbance will occur prior to release of suppression resources. Costs associated with mitigating suppression actions will be covered by wildland fire suppression funds, not emergency fire rehabilitation funds.

The “minimum tool” will be applied to all fire rehabilitation projects within WSAs. Any rehabilitation actions must maintain an area’s suitability for preservation as wilderness. Fire rehabilitation should be accomplished using methods and equipment that causes the least damage to wilderness resources. The use of motorized vehicles and mechanical equipment will be minimized to the extent possible.

The appropriate species and methods for seeding will be considered on a case-by-case basis to determine if the proposed method meets the policy and guidelines for WSAs. Seed and planting will utilize native species, and will minimize cross-country use of motorized equipment. Seedings and plantings will be staggered or irregular so as to avoid a straight-line plantation appearance. Seed will be applied aerially unless the area to be rehabilitated is small, or ground application will not impair wilderness characteristics. Because the covering of seed greatly affects its successful germination, mechanized equipment may be considered to cover the seed after aerial application. If the burned area is determined to be crucial wildlife habitat, and shrub seed is not applied aerially, then seedlings may be hand planted.